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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,654	10/02/2000	Michael James Knee	87805-9010	9007
23409 7590 12/18/2007 MICHAEL BEST & FRIEDRICH LLP 100 E WISCONSIN AVENUE Suite 3300 MILWAUKEE, WI 53202			EXAMINER VO, TUNG T	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 12/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/600,654	Applicant(s) KNEE, MICHAEL JAMES	
	Examiner Tung Vo	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10,12,14,15,17-19,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 1,11,14,16 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10,12,14,15,17-19,25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-10, 12, 14, 15, 17-19, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koz (US 5,990,955).
3. Re claims 9, 12, 14, 15, 25, 26, Koz discloses a compression pre-processing apparatus, comprising: a coder (100 and 104 of fig. 6, wherein the coder (104) would obviously use the elements in figure 2) for analyzing an input video signal (102s of fig. 6) and taking compression coding decisions (104 of fig. 6, particularly 206 and 210 of fig. 2) which contain all the decisions (inter, intra, motion vector are computed in figure 2) necessary for the creation of a compressed bitstream apart (212 of fig. 2) from those decisions relating to quantization (Note MPEG standard would obviously contain quantization); and

a processor (110 of fig. 6) for processing the coding decisions and an output for outputting, from the compression pre-processing apparatus (101 of fig. 6), the processed coding decisions for passage with the input video signal along a video pathway (103 and 109 of fig. 6), wherein the input video signal which is passed along the video pathway (output of 109 of fig. 6).

It is noted that Koz teaches the processed coding decisions undergoes compression processing, and Koz suggests it would be an advantage to selectively and dynamically modify

compression of digital video data controllably and continuously within given bit rate and quality constraints. Therefore, one skill in the art would modify by assembling memory control (109 of fig. 6) coupled to the processing unit (110 of fig. 6) to process the video input signal (101 of fig. 6) with no further compression process. Doing so would provide an improvement over prior art video compression systems, in which there is only one real-time encoding pass per GOP.

Re claim 2, Koz further teaches wherein said representation of the coding decision (206 and 210 of fig. 2) comprises an information bus in which the coding decisions are represented in the same format as they are represented in the compressed bitstream which is the output of said downstream compression coding operation (transfer the coding decisions by bus 208 of fig. 2).

Re claim 3, Koz further teaches wherein said analysis generates information relating to picture size and type (I, P, B pictures of MPEG standard and inter intra coding, 206 and 210 of fig. 2).

Re claim 4, Koz further discloses wherein said analysis comprises the generation of candidate motion vectors (206 of fig. 2).

Re claim 5, Koz further teaches wherein said analysis comprises the selection for each macroblock of the picture of a motion vector from said candidate motion vectors (Inter and Intra selection motion vectors are computed by the motion estimation, 210 of fig. 2).

Re claim 6, Koz further teaches in which said analysis comprises the selection of a macroblock prediction mode (210 of fig. 2).

Re claims 7 and 8, Koz teaches wherein said analysis includes a bit rate control and the taking of quantizer decisions appropriate to maintenance of a selected bit rate; wherein plural bit rates are selected and plural quantizer decisions are taken (210 of fig. 2; the encoding decision

block 210 performs macro block 310 intra/inter/Quantizing decisions, makes field and frame decisions, and performs rate control, half-pel motion estimation and video buffer verifier (VBV) calculations).

Re claim 10, Koz further teaches wherein said means for processing the coding decisions provides a representation of the coding decisions in the form of a compressed video bit-stream lacking transform coefficients (the decisions are used for encoding without using transform coefficients, 210 of fig. 2).

Re claim 17, Koz further teaches wherein said means for outputting processed coding decisions serves to modulate one or more least significant bits of video signal (the decisions inherently have one or more least significant bits; Mux 214 of fig. 2 for multiplexing decisions, encoded video signal and input video signal).

Re claim 18, Koz further teaches wherein the input video signal which is passed along decisions comprises means for modifying the un-encoded input video signal by adding the processed coding decisions (110 of fig. 6; use the mux (214 of fig. 2) for multiplexing the processed coding decisions and un-encoded input video signal).

Contact Information

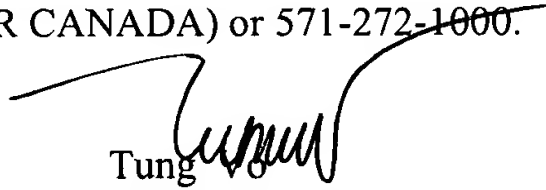
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tung Vo
Primary Examiner
Art Unit 2621